Public Health Assessment — Polk County

Cedartown Industries
December 21, 2005

Introduction
The Cedartown Industries, Inc. site (Cedartown Industries) was put on the National Priorities List (NPL) by the U.S. Environmental Protection Agency (EPA) in February 1990. Since 1986, the Agency for Toxic Substances and Disease Registry (ATSDR) has been required by law to conduct a public health assessment at each of the sites on the NPL. The Agency for Toxic Substances and Disease Registry (ATSDR) conducted a public health assessment of Cedartown Industries that was published January 29, 1990. At that time, ATSDR concluded that this site posed an indeterminate public health hazard to humans exposed to known concentrations of hazardous substances on-site. ATSDR reached this conclusion because a comprehensive evaluation determining the extent of on/off-site contamination had not been conducted.

The Georgia Division of Public Health (GDPH) is providing a follow-up public health assessment of Cedartown Industries. GDPH has reviewed extensive soil, groundwater, surface water, site remediation, and monitoring data that have been generated since 1990.

Site Description and History
The Cedartown Industries site is located on South Furnace Street in Cedartown, Polk County Georgia, about one-half mile west of the downtown area. The site is on 6.8 acres of land where a secondary lead smelting business operated for approximately two years. Currently, three buildings are located on the property. The site is bordered by Cedar Creek to the west and a chain link fence to the north, south, and east. A levee, constructed in 1980, borders the site to the west, north, and south to protect the site from a 100-year flood. In general, land use in the vicinity of the site, especially to the south and west, is largely agricultural and commercial.

The Cedartown Industries site was initially operated as an iron foundry. The foundry opened in the 1870's with a capacity for 50 tons per day. At the turn of the century, the furnace was processing about 100 tons per day. Ore was reportedly shipped to the furnace along a narrow gauge railway that crossed Cedar Creek just south of the present CSX rail line.

From 1978 to 1980, Sanders Lead Company, Inc. (Sanders Lead) used the site for a secondary lead smelting business. The secondary lead smelting operation purchased raw lead materials from various suppliers and recycled these materials through various melting and skimming processes.

The current property owner purchased the site in August 1984. The site has been leased to the H&W Transfer Company for parking and maintenance of vehicles, mainly tractor-trailers. The property east of the site was reportedly a coke smelter at the time the Cedartown Foundry was operating. The property southeast of the site was reportedly the Cedartown municipal landfill, which was closed in the late 1930's or early 1940's.

When the lead smelting operation ceased in 1980, waste material remained on site. On January 7, 1986, the Georgia Environmental Protection Division (GEPD) conducted an investigation and environmental sampling at the site. A Site Inspection Report prepared by GEPD in 1986 cited the presence of approximately 5,000 cubic yards of slag material and 32,000 gallons of wastewater in the inactive surface impoundment. Also, lead and cadmium were detected both in on-site waste piles and soil. The only compound reported above environmental regulatory levels during the investigation was lead.

The Cedartown Industries site was proposed for listing on the NPL by EPA in 1988 and finalized in February 1990. In June 1990, Sanders Lead entered into an Administrative Order on Consent with EPA to determine the nature and extent of contamination at the site and the associated health risks, and to evaluate alternatives for eliminating those threats. Sanders Lead, under EPA's oversight, completed the remedial investigation/feasibility study in December 1992.

Also under EPA oversight, removal of slag and coke storage piles, contaminated debris, soil, wastewater, and impoundment sediment from the site was completed in May 1990. A total of 6,700 cubic yards of solid hazardous materials (approximately 8,380 tons) were

removed and transported to a permitted hazardous waste landfill. A total of 62,225 gallons of liquid waste was transported to an industrial wastewater treatment system designed and permitted to treat metal- containing liquid waste. When waste removal was completed, no visible waste material was present at the site. Soils which exceeded a lead concentration value of 500 mg/kg were excavated for onsite treatment. A Record of Decision (ROD) was signed on May 7, 1993. The ROD called for the excavation and onsite treatment of impacted soil by stabilization/solidification, and subsequent onsite disposal of treated soils as a final remedy. The ROD also called for monitoring the natural attenuation of cadmium in groundwater.
Partially constructed above grade buildings intended for use in the recycling operation were demolished for treatment by an onsite ex-situ solidification and stabilization process. Site remediation was completed in May 1997.

For impacted groundwater, EPA provided two primary objectives of the natural attenuation remedy. These were: (1) to monitor the progress of the natural attenuation of cadmium-impacted groundwater, and (2) to assess the effectiveness of the soil remedial action in preventing leaching of contaminants of concern (COCs) to the uppermost aquifer.

Based on these objectives, a groundwater monitoring program was designed and implemented that consisted of quarterly monitoring which began in the third quarter of 1996 until the second quarter of 1999. Thereafter semi-annual groundwater sampling was conducted, which continues to the present time.
Groundwater monitoring activities were conducted at the four down-gradient monitoring wells (MW-1, MW-2, MW-3, MW-4) and one background monitoring well (MW-6) identified in Figure 2. Groundwater samples were analyzed for antimony, arsenic, beryllium, cadmium, and lead. Results for each of the quarterly and semi-annual monitoring events have been documented and submitted to EPA for review.

Environmental Sampling
Several investigations were conducted at Cedartown Industries between 1986 and 2001 to characterize the extent of contamination released to environmental media (soil, groundwater, air, and surface water) from the site. Available data include surface and subsurface soil samples collected onsite, as well as background samples taken from west of the site. Groundwater samples were collected from shallow and deep groundwater monitoring wells in the water table and bedrock aquifer units on-site. Surface water samples were collected from eight locations on Cedar Creek and also from the on-site impoundment. During the interim waste removal project in 1990, two high volume air samplers were used downwind of the waste piles to monitor potential airborne contaminants generated by remedial activities.

Results
At Cedartown Industries, soil, surface water, and air are completed exposure pathways that encompass the five principal elements of a pathway: a source of contamination, transport through an environmental medium, a point of exposure, a route of human exposure, and a receptor population. These three pathways were completed in the past before remediation took place onsite. All pathways have been eliminated through remediation and there are currently no completed exposure pathways at present or expected in the future. Groundwater is considered a potential past exposure pathway because contaminants may have migrated into the groundwater; however, on-site groundwater was never consumed as drinking water. Also, there are no drinking wells in the area, eliminating this point of exposure.

Conclusions
GDPH developed the following conclusions and assigned public health hazard categories to the site based on past, present, and future time frames at Cedartown Industries.

- GDPH has determined that under the worst case scenario the site may have posed a ***past public health hazard*** for lead exposure to children who may have trespassed onto the property on a regular basis, as well as for workers employed by Sanders lead company between 1988 and 1990.
- Based on past exposure to antimony, arsenic, beryllium, and cadmium, **no *public health hazard*** existed.
- ***No public health hazard*** currently exists at the site because remediation was completed in 1997.

Recommendations
There are no recommendations at this time.